1. **Question:** Do meals with chilli and without chilli affect temperature differently?

Null hypothesis:

>

Hypothesis test: An unpaired t-test was performed. The p-value was 0.093.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

2. **Question:** Can the majority of people distinguish between expensive and inexpensive wine?

Null hypothesis:

>

Hypothesis test: A one-sample z-test for proportions was performed. The p-value was 0.031.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

3. **Question:** Are changes in indoor temperature associated with changes in dust-mite populations?

Null hypothesis:

>

Hypothesis test: A regression analysis was performed. The p-value for the slope was 0.0001.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

4. **Question:** Are the percentages of men and women participating in volunteer work the same?

Null hypothesis:

>

Hypothesis test: A chi-squared test was performed. The p-value was 0.310.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

5. **Question:** Do the different types of dyslexia affect children's scores on a computer test?

Null hypothesis:

>

Hypothesis test: A one-way ANOVA was performed. The p-value was 0.025.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

6. **Question:** Does drinking chamomile tea help people feel more relaxed than otherwise?

Null hypothesis:

>

Hypothesis test: a MacNemar's test was performed. The p-value was 0.067.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence	Some evidence

Strong evidence	Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? | Reject | | Retain |

ANSWERS
ARE ON THE NEXT TWO PAGES

DON'T PEEK!

1. **Question:** Do meals with chilli and without chilli affect temperature differently?

Null hypothesis:

Meals with chilli and without chilli affect temperature the same.

Hypothesis test: An unpaired t-test was performed. The p-value was 0.093.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence | **(Some evidence)**

Strong evidence | Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? Reject | **(Retain)**

2. **Question:** Can the majority of people distinguish between expensive and inexpensive wine?

Null hypothesis:

The number of people who can distinguish is exactly 50%

Hypothesis test: A one-sample z-test for proportions was performed. The p-value was 0.031.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence | Some evidence

(Strong evidence) | Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? **(Reject)** | Retain

3. **Question:** Are changes in indoor temperature associated with changes in dust-mite populations?

Null hypothesis:

Changes in temp and dust-mite populations are associated.

Hypothesis test: A regression analysis was performed. The p-value for the slope was 0.0001.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence | Some evidence

Strong evidence | **(Very strong evidence)**

If the significance level is 5%, then do we reject or retain the null hypothesis? **(Reject)** | Retain

4. **Question:** Are the percentages of men and women participating in volunteer work the same?

Null hypothesis:

The percentages of men and women participating in volunteer work are the same.

Hypothesis test: A chi-squared test was performed. The p-value was 0.310.

Interpretation: How strong is the evidence that the null hypothesis is false?

(No evidence) | Some evidence

Strong evidence | Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? Reject | **(Retain)**

5. **Question:** Do the different types of dyslexia affect children's scores on a computer test?

Null hypothesis:

The different types of dyslexia do not affect children's scores on the computer test?

Hypothesis test: A one-way ANOVA was performed. The p-value was 0.025.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence | Some evidence

(Strong evidence) | Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? **(Reject)** | Retain

6. **Question:** Does drinking chamomile tea help people feel more relaxed than otherwise?

Null hypothesis:

Drinking chamomile tea does not help people feel differently relaxed than otherwise.

Hypothesis test: a MacNemar's test was performed. The p-value was 0.067.

Interpretation: How strong is the evidence that the null hypothesis is false?

No evidence | **(Some evidence)**

Strong evidence | Very strong evidence

If the significance level is 5%, then do we reject or retain the null hypothesis? Reject | **(Retain)**